

FEDOTOVA, K.M.

Role of parasites and insectivorous birds in controlling brown-tail moth propagation. Nauch.trudy Inst.ent.i fit. 2:210-241 '50.
(MLRA 9:2)

(Brown-tail moth)(Insects, Injurious and beneficial--Biological control)

FEDOTOVA, K.M.

**Role of parasites and insectivorous birds in controlling the
propagation of *Aperia crataegi*. Nauch.trudy Inst.ent.i fit 2:
242-277 '50. (MLBA 9:2)**

**(Butterflies)(Insects, Injurious and beneficial--Biological
control)**

FEDOTOVA, K.M., kandidat sel'khoz'yaystvennykh nauk.

Results of using *Trichogramma evanescens* Westw. to control the
cabbage moth *Plutella brassicae*. Nauch.trudy Inst.ent. 1954:24-29
'54. (MLRA 9:1)
(Chalcid flies) (Cabbage--Diseases and pests)

FEDOTOVA, K.M., kandidat sel'skokhozyaystvennykh nauk; RYAKHOVSKIY, V.V.,
kandidat sel'skokhozyaystvennykh nauk.

Role of the ichneumon fly *Aphidius ervi* Hal. (Aphidiidae) in pea
plant lice propagation. Nauch.trudy Inst.ent.1 fit. 5:87-90 '54.
(MLRA 9:1)

(Ichneumon flies) (Plant lice)

FEDOTOVA, K.P.

Shortcomings in the knowledge of students in solid geometry. Uch.
zap.RGPI 15:129-155 '58. (MIRA 12:7)
(Geometry, Solid--Study and teaching)

FEDOTOVA, K.P.

Tattooing as an index of the taking in the transplantation of a free skin graft. Trudy 1-go MMI 42:209-213 '65.

(MIRA 19:2)

1. Laboratoriya po peresadke organov i tkaney AN SSSR.

FEDOTOVA, L.

USSR/Chemical Technology. Chemical Products and Their I-13
Application--Treatment of solid mineral fuels

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 9214

Author : Fedotova, L. and Vanag, G.
Inst : Latvian Academy of Sciences
Title : Pyridine Bases from Sapropelite Tar

Orig Pub: Izv. AN LatvSSR, 1956, No 5, 101-104 (Latvian
summary)

Abstract: The base content of tar obtained from sapropelite coal from the Spizu swamp, Dobel rayon, Latvian SSR, has been investigated; 9-10% bases were found to be present in the tar. It is shown that the bases consist principally of compounds of the pyridine and quinoline series. No primary means were found; secondary means were determined to be present. The author have investigated the pyridine-picoline fraction. Five pyridines have been separated and identified: pyridine, α -, β -, γ -

Card 1/2

USSR/Chemical Technology. Chemical Products and Their I-13
Application--Treatment of solid mineral fuels

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 9214

Abstract: picolines, and 2,6-lutidine. A 10% H₂SO₄ solution extracts only a fraction of the bases present in the tar fraction.

Card 2/2

PEDOTOVA, L.A., Cand Chem Sci—(diss) "Pyridine bases of soproelic tar."
Riga, 1958. 15 pp, 2 ^{sheet} ~~parts~~ of charts (Acad Sci Latvian SSR. Inst of Fore-
stry Problems), 150 copies (K1,49-58,121)

FEDOTOVA, L.A.

Conference on the chemistry of pyridine and quinoline bases. Khim.
nauka 1 prom. 3 no.2:276-277 '58. (MIRA 11:6)

(Pyridine bases--Congresses)
(Quinoline--Congresses)

FEDOTOVA, L.

GENERAL

PERIODICALS: VESTIS, No. 5, 1958

FEDOTOVA, L. Pyridazines, bases of sapropelic tar. II In Russian. p. 93

Monthly list of East European Accessions (EEAI) IC, Vol. 8, No. 2,
February 1959, Unclass.

BANKOVSKIY, Yu. [Bankovskis, J.] (Riga); FEDOTOVA, L. (Riga); IYEVIN'SH, A.
[Ievins, A.] (Riga)

ω, ω -diquinaldildisulfate and its reaction with metal ions. Vestis
Latv ak no. 12:69-74 '60. (EEAI 10:9)

1. Akademiya nauk Latvyskoy SSR, Institut khimii.

(Quinaldil) (Disulfide group) (Ions)

$P \in \mathcal{S}_1 \cup \mathcal{S}_2 \cup \mathcal{S}_3 \cup \mathcal{S}_4$

100

INTEREST: Barrows, Jr. A., Federal

2712
Symbol of 5-3-1000 Symbol

RESULTS: Ethanol synthesis from 5-bromo quinoline, 1950, Feb. 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 260, 265, 270, 275, 280, 285, 290, 295, 300, 305, 310, 315, 320, 325, 330, 335, 340, 345, 350, 355, 360, 365, 370, 375, 380, 385, 390, 395, 400, 405, 410, 415, 420, 425, 430, 435, 440, 445, 450, 455, 460, 465, 470, 475, 480, 485, 490, 495, 500, 505, 510, 515, 520, 525, 530, 535, 540, 545, 550, 555, 560, 565, 570, 575, 580, 585, 590, 595, 600, 605, 610, 615, 620, 625, 630, 635, 640, 645, 650, 655, 660, 665, 670, 675, 680, 685, 690, 695, 700, 705, 710, 715, 720, 725, 730, 735, 740, 745, 750, 755, 760, 765, 770, 775, 780, 785, 790, 795, 800, 805, 810, 815, 820, 825, 830, 835, 840, 845, 850, 855, 860, 865, 870, 875, 880, 885, 890, 895, 900, 905, 910, 915, 920, 925, 930, 935, 940, 945, 950, 955, 960, 965, 970, 975, 980, 985, 990, 995, 1000.

Case 1/3

presence of ammonium bisulfite. Q. A. Kibbey (Ref. 7) improved this method, and was able to raise the yield of 5-bromoquinoline to 80%. The authors used this method for the preparation of quinoline. The synthesis of 5-bromo quinoline derived is accomplished as follows: 5-bromoquinoline is acetylated in benzene solution with acetic anhydride. 5-Acetoxyquinoline which results in good yield is not isolated but is transformed in the next reaction mixture at 0-20°C. In this way, 5-bromo-2-acetoxyquinoline is obtained in 93-95%. In this way, the resultant 5-bromoquinoline is acetylated in sulfuric acid solution at -20°. By reduction with stannous chloride, the diast group is removed and quinoline is decolorized to colorless alcohol. And reduction with hydrogen, and 5-bromoquinoline, and the product is a yield of 40-50%. In an experimental part, the total amount of 5-bromoquinoline is described in detail. The scheme of the synthesis is given as well. There are 11 references, 4 of which are Soviet.

ASSOCIATION: Institut khimii Akademi nauk Latvinyakoy SSR (Institute of Chemistry of the Academy of Sciences, Latvinyakaya 53a)

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REMITTED: May 22, 1959

Page 3/3

DOLGUNOV, F., agronom-metodist; FEDOTOVA, L., zootekhnik

Let's introduce the study of chemistry in rural schools. Prof.-tekhn.
obr. 21 no.2:12-13 F '64. (MIRA 17:9)

TIMOSHENKO, U.I.; FEDOTOVA, I.F.

Late spring and early autumn frosts in the Chu and Talas Valleys of
the Kirghiz S.S.R. Trudy Sred.-Az. nauch.-issl. gidrometeor. inst.
no.20:183-200 '65. (MIRA 18:10)

AKSENIENKO, V.M.; FEDOTOVA, L.G.

Acetone method of determining acids in hydrazine salts. Zav.
lab. 30 no.6:671-672 '64 (MIRA 17:8)

FEDOTOVA, L.I.

PHASE I BOOK EXPLANATION EW/5559

Abadmiya mek 5038. Institut metallurgii. Nauchnyy sovet po probleme zharnykh splavov

Iskissleniya po zharnykh splavam, t. 5 (Investigations of Heat-Resistant Alloys, Vol. 5) Moscow, Izd-vo M SSSR, 1979. 45 p. Kirena vily inserted. 2,000 copies printed.

Ed. of Publishing House: V.A. Kiklov; Tech. Ed.: I.P. Kuz'min; Editorial Board: I.P. Bardis, Academician, G.V. Burdakov, Academician, B.V. Artyev, Corresponding Member, USSR Academy of Sciences (Resp. M.), I.A. Odint, I.M. Pavlov, and I.P. Zolov, Candidates of Technical Sciences.

PURPOSE: This book is intended for metallurgical engineers, research workers in metallurgy, and may also be of interest to students of advanced courses in metallurgy.

CONTENTS: This book, consisting of a number of papers, deals with the properties of heat-resistant alloys. Each of the papers is devoted to the study of the influence of various factors on the properties and behavior of alloys. The effects of various alloying elements and the influence of heat treatment on the properties of various alloys are studied. Deformation and mechanical properties of certain metals as related to the thermal conditions are the subject of another study described. The problems of hydride embrittlement, diffusion and the deposition of ceramic coatings on metal surfaces by means of electrophoresis are examined. One paper describes the apparatus and methods used for growing monocrystals of metals. X-ray-base metals are critically examined and evaluated. Results are given of studies of intermetallic bonds and the behavior of atoms in metal. Tests of turbine and compressor blades are described. No personalities are mentioned. References accompany most of the articles.

Lashko, I.A., B.M. Nizyev, and E.F. Gorchakov. XI 796 Austenitic Steel	19
Rubinska, V.P., E.A. Burdakov, E.A. Kichalova, E.F. Kuz'min, and E.F. Kuz'min. XI 796 Heat-Resistant Chromium-Nickel-Titanium Steel	23
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Kozlov, E.I., V.A. Izv, and E.A. Shcherbakova. Study of Hydrogen Embrittlement of Low-Carbon Steels	119
Yemakov, V.S. Artificial Aging of the XI 79 Alloy under Cyclic Loads	126
Kozlov, E.I., and V.A. Pavlov. Study of Fine Structures of Aluminum-Magnesium and Copper-Nickel Solid Solutions	131
Burakov, E.I. Regularities of the Thermodynamic Change in Austenite and the Problem of the Development of New Alloys	137
Kozlov, E.I., E.F. Kuz'min, and A.V. Kozlov. Study of the Endurance Limit of Metals by Means of Registering the Fatigue Curve	143

SOV/96-59-9-10/22

AUTHORS: Laguntsov, I.N. (Candidate of Technical Sciences) and
Fedotova, L.I. (Engineer)

TITLE: The Long-term Strength of Boiler Steels under Variable
Temperature Conditions

PERIODICAL: Teploenergetika, 1959, Nr 9, pp 57-63 (USSR)

ABSTRACT: Existing methods of calculating the strength of parts operating under creep conditions are based on permissible stresses at constant temperatures. In practice, the temperature may be very variable, as in starting up boilers. The materials investigated were steam/water tubes of steel 12KhMF, 273 x 32 mm diameter, and steel 1Kh18N12T, 219 x 27 mm diameter. The chemical composition, heat treatment, and mechanical properties of the steel are given in Table 1. Steel 12KhMF consists of ferrite and pearlite, and steel 1Kh18N12T is of normal austenitic structure. The long-term strength tests were made on normal cylindrical specimens 10 mm diameter and 100 mm long. The first stage consisted of preliminary tests at constant temperature, and the results are given in Table 2. A temperature of 565 °C was chosen as normal for steel 12KhMF and 600 °C for steel 1Kh18N12T. Most of the tests were made at these temperatures to obtain reliable data

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SOV/96-59-9-10/22

The Long-term Strength of Boiler Steels under Variable Temperature Conditions

for the ultimate strength at 100 000 hours. Fewer tests were made at higher temperatures because the long-term strength of both steels is already very well known. At other temperatures agreement with published data was satisfactory. The different types of temperature cycling used are described and typical temperature cycle graphs are illustrated diagrammatically in Fig 1. The results of tests at variable temperatures are given in Table 3. It will be seen that overheating reduces the long-term strength of steel, particularly as the temperature and the time are increased. The plasticity at failure is practically the same as in constant-temperature tests. The methods used to work out the results and to summate the loss of life at different temperatures are explained. Existing methods of determining the time to failure under variable temperature conditions require complicated analytical calculations, and simpler and more convenient procedures are required. The procedure evolved for evaluating the influence of temperature cycling made use of the parametric relationship proposed

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SOV/96-59-9-10/22

The Long-term Strength of Boiler Steels under Variable Temperature Conditions

by Larson and Miller. This involves Eq (1), to determine the time to failure at one temperature from test data obtained at another temperature. This formula can be used to translate to a reference temperature exposure times at another temperature. A graphical method of working out the results was used, auxiliary lines being drawn on the parametric graph according to the temperature stages of the long-term strength test. The results of constant temperature tests were used to construct generalised parametric relationships of the type shown graphically in Fig 2 for steel 12KhMF. The rectangles on Fig 2 indicate the limits of scatter of the long-term strength tests results at variable temperatures. The corresponding numerical values are given in Table 4. Analysis of the graphs given in Fig 1 and the data in Table 4 shows that the test results at variable temperature coincide satisfactorily with the generalised straight line. Therefore, the parametric relationship may be used to evaluate the influence of overheating on the long-term strength. The weak point in the method is the selection of the coefficient c in Eq (1), and

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The Long-term Strength of Boiler Steels under Variable Temperature Conditions

after some consideration of this point it is recommended to use values of c from 21 to 27 for steel 12KhMF and from 8 to 19 for steel 1Kh18N12T. It is evident that the value of 20 recommended by Larson and Miller should not be used for all materials. A graphical method was developed to determine the time to failure and long-term ultimate strength under variable temperature conditions. The procedure is explained and the generalised diagrams for the two steels examined are given in Figs 3 and 4. It is claimed that the graphical method has the advantages of simplicity and convenience in finding the time to failure at variable temperature by means of nomograms; moreover, the long-term ultimate strength can easily be determined. When using the graphical method it is not necessary to know the shape of the

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SOV/96-59-9-10/22
The Long-term Strength of Boiler Steels under Variable Temperature
Conditions

temperature cycle accurately provided that the time at
each temperature is known.

Card 5/5 There are 4 figures, 4 tables and 4 references, of
which 1 is English, 1 Soviet, 1 German and 1 Czech.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskii institut
(All-Union Thermo-Technical Institute)

34658

S/096/62/000/002/002/008

E193/E383

18.1151
AUTHOR: Fedotova, L.I., Candidate of Technical Sciences
TITLE: Creep-resistance of a pearlitic steel under conditions
of cyclic temperature variation

PERIODICAL: Teploenergetika, no. 2, 1962, 56 - 59

TEXT: The pearlitic steel 12XMF (12KhMF) has recently found wide application as a material of construction for more responsible parts of boiler plant. However, it has been found at several power stations that the material of steam-conduit pipes had a low impact strength. This has given rise to doubts regarding the suitability of the steel 12KhMF for this application - hence the present investigation carried out on specimens cut from a tube (273 x 36 mm) having the following composition (%): C 0.12; Mn 0.50; Si 0.31; S 0.026; P 0.013; Cr 1.25; Mo 0.30, V 0.16. Specimens in a brittle condition were obtained by normalizing the steel for 30 min at 980 °C and 2 hours tempering at 650 °C. Electron-microscope examination of the microstructure showed that whereas steel in the ductile

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E193/E383

condition had clearly defined grain boundaries free from precipitated phases, the structure of the brittle specimens was characterized by the presence of secondary-phase particles distributed mainly in a chain-like fashion along the grain boundaries. The mechanical properties of both types of material are given in Table 1. Creep tests were carried out under conditions of cyclic temperature variation, one cycle consisting of 24 hours at a temperature 25 or 15 °C below 570 °C, followed by 24 hours at a temperature 25 or 15 °C above 570 °C. The results are reproduced (in logarithmic coordinates) in Fig. 4, ✓

where the stress (kg/mm^2) is plotted against time-to-rupture (hours), graphs a and b representing, respectively, the results of tests under 555-585-555 and 545-595-545 °C cycles; Curves 1-5 relate to specimens in: 1 - ductile condition, 2 - brittle condition; 3 - brittle condition (notched specimens); 4 - brittle condition (unnotched specimens) and 5 - brittle condition (notched specimens); the broken parts of the curves were obtained by extrapolation. After each time-to-rupture

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test, the material was subjected to mechanical tests at room temperature. The results of these tests are given in Table 4. The microstructure of the ruptured specimens was also examined and the composition of the carbide phases (separated by electrolytic dissolution) was determined. The results are given in Table 5. It will be seen that in the case of ductile material, its solid solution after the tests had been found denuded of carbide-forming constituents, whereas the composition of carbides in the brittle material remained practically unaltered. Examination of the microstructure of ruptured specimens showed that the lamellar character of pearlite and absence of precipitated phases along the grain boundaries in ductile material were hardly affected by cyclic temperature variation under stress. The precipitates of secondary phases, present along the grain boundaries in the brittle material before the ageing tests, could be observed also after the tests; in addition, there was evidence of fragmentation of grains and formation of blocks. The fracture of the ductile material was intracrystalline and was preceded by considerable plastic deformation.

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The following general conclusions were reached: 1) under conditions of the present investigation (stress and thermal cycling), plasticity of the steels studied in the brittle condition can fall to 1-2%. On the other hand, the value of stress leading to fracture of the brittle material in 100 000 hours is higher than that for steel in the ductile condition. This means that on the one hand it may be dangerous to use steam-conduit pipes in the initially brittle condition, i.e. with $a_K < 1 \text{ kgm/cm}^2$ and, on the other hand, it may not be advisable to aim at the highest possible initial value of a_K , which raises the problem of determining its optimum value. 2) Stress risers decrease the resistance to creep of the steel studied under conditions of cyclic temperature variation, this effect being more pronounced at high values of the applied stress. 3) The impact strength of ductile steel, stressed under conditions of cyclic temperature variation, slightly increases.

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The impact strength of the brittle material under the same conditions does not change.
There are 6 figures, 5 tables and 2 Soviet-bloc references.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy institut
(All-Union Institute of Heat Engineering)

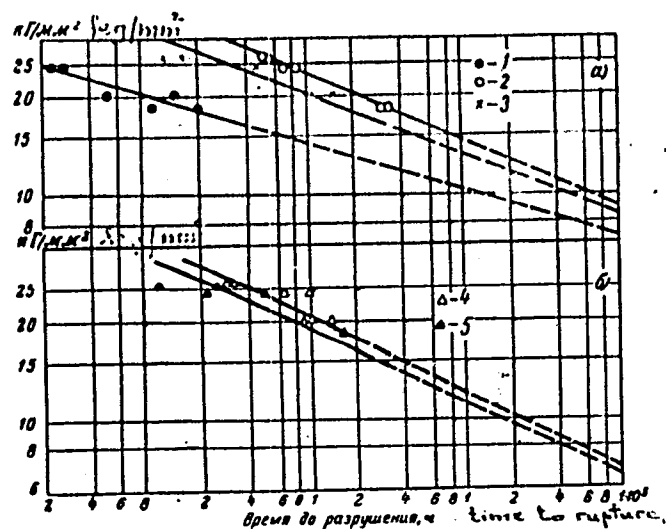
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E193/E383

Fig. 4:



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Table 1:

Test tempera- ture, °C	σ_B , kg/mm ²	σ_S , kg/mm ²	δ_s , %	ψ , %	ψ_H^* , %	a_K , kg/cm ²	Remarks
20	47.0	29.6	31.4	72	-	13	Ductile condition
20	89.5	75.5	16.7	56.7	3.31	0.7	Brittle condition

* Reduction of area in the notched specimens

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E193/E383

Table 4: Key: 1 - Test conditions; 2 - Time-to-rupture, τ , hrs;
3 - impact strength, a_K , kgm/cm²; 4 - Remarks; 5 - ductile
condition; 6 - brittle condition; 7 - Mechanical properties.

(See card 9/10)

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36146

S/137/62/000/003/123/191

A060/A101

18.8200

AUTHORS: Laguntsov, I. N., Fedotova, L. I.

TITLE: On the effect of temperature variation upon the endurance of steel
12X MΦ(12KhMF)

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 28, abstract 3I168
(V sb. "Ekspluatats. nadezhnost' metalla parosilovykh ustanovok".
Moscow - Leningrad, Gosenergoizdat, 1959, 83-89)

TEXT: An investigation was carried out on specimens of boiler steel
12KhMF, cut out from a steam pipe with 173 x 32 mm diameter after normalizing
at 960 - 980°C and subsequent tempering at 740 - 760°C. The endurance tests
were carried out on ИП-2 (IP-2) machines at the rated temperature of 565°C and
stresses of 15, 18, and 20 kg/mm². Besides tests at constant and varying
temperatures at 565, 575 (variation 10°C), 590 (variation 25°C), and 615°C
(variation 50°C), combined tests were carried out: after testing the specimens
for a definite period of time at the rated temperature, they were heated up to
a higher temperature (the variation prescribed) and were brought up to failure.
In each series of tests the duration of the soaking at the rated temperature

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On the effect of temperature variation ...

S/137/62/000/003/123/191
A060/A101

(before increasing up to a higher temperature) constituted 75, 50, and 25% of the time till failure at 565°C. The creep curves during the transition to the higher temperature sharply change their slope, and this the more sharply, the greater is the size of the temperature variation. It is noted that the ductility of the 12KhMF steel under combined tests is practically not lowered at all. An investigation of the possibility of applying the Larson-Miller temperature-time dependence for estimating the effect of temperature variations has shown that when the value of the coefficient C is correctly chosen this dependence is valid. It is confirmed that the value of C varies between wide limits as a function of varying the testing conditions (in the tests carried out C varies between 15 and 27). As the criterion for the correct choice of the value of C it is proposed to apply the condition of coincidence of the endurance limits determined by the parametric and the classical methods.

Z. Fridman

[Abstracter's note: Complete translation]

Card 2/2

ZLEPKO, V.F., kand. tekhn. nauk; FEDOTOVA, L.I., kand. tekhn. nauk

Operational reliability of embrittled pipes from 12Kh1MF steel.
Elek. sta. 35 no.12:17-20 D '64.

(MIRA 18:2)

L 22159-65 ENT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b) APOC(a) MJW/JD
ACCESSION NR: AP5002204 S/0096/65/000/001/0063/0065

AUTHORS: Zlepko, V. F. (Candidate of technical sciences); Fedotova, L. I. (Candidate of technical sciences)

TITLE: Investigation of collector tube metal reliability in 300 Mw units

SOURCE: Teploenergetika, no. 1, 1965, 63-65

TOPIC TAGS: steel, endurance limit, impact strength, aging process/ 12Kh1MF
steel, 15Kh1MF steel

ABSTRACT: The reliability of two types of steels, 12Kh1MF and 15Kh1MF, was investigated in connection with their use as collector tube metals in a 300 Mw unit. The 12Kh1MF steel tube was quenched in 950C oil and annealed at 740-750C for 9 hours. The 15Kh1MF steel tube was standardized at 1050-1100C and annealed at 740-750C for 15 hours. Their impact strength remains unchanged up to a 620C temperature increase. Their strength characteristics at room temperature also remained unchanged in the aging process at 595C. Curves of endurance strength limit σ for both steels at 600 and 620C were found to be significantly lower

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I. 22159-65

ACCESSION-NR: AP5002204

than σ' at 585C for the 12Kh1MF steel (by about 3 kg/mm²). Because of this low σ' , under equal conditions the 12Kh1MF steel tube should be much thicker than the 15Kh1MF steel tube. These allowable stresses are given in Table 1 of the Enclosure. Orig. art. has: 7 tables and 2 figures.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskii institut (All-Union Heat Technology Institute)

SUBMITTED: 00

INCL: 01

SUB CODE: MN

NO REF SOV: 000

OTHER: 000

Card 2/3

L 22159-65

ACCESSION NR: AP5002204

ENCLOSURE: 01

Table 1

steel type	allowable σ_{adm} (N/mm^2)	σ_{adm} (N/mm^2) at safety allowable factor		
		1.65	1.85	2.0
12Kh1MF	8.7(55.0)	3.45 (33.9)	3.68 (30.2)	3.85 (27.9)
15Kh1MF	7.0(49.6)	4.25 (41.8)	3.78 (37.0)	3.6 (31.3)

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FEDOTOVA, L.I., kand. tekhn. nauk

Experience in the operation of steam pipes from 12Kh1MF steel,
Teploenergetika 12 no.6:56-58 Je '65. (MIRA 18:9)

1. Vsesoyuznyy teplotekhnicheskiy institut.

L 28875-66 EWP(1)/EWT(m) RM

ACC NR: AP6018835

SOURCE CODE: UR/0079/65/035/003/0534/0544

AUTHOR: Shokol, V. A.; Fedotova, L. I.; Frolova, A. N.; Kirsanov, A. V. 31
B

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Higher dialkyl esters of arylsulfonylamidophosphoric acids 7

SOURCE: Zhurnal obshchey khimii, v. 35, no. 3, 1965, 534-544

TOPIC TAGS: organic synthetic process, ester, phosphoric acid, organic sulfur compound, organic nitrogen compound, organic salt

ABSTRACT: Dialkyl esters of arylsulfonylamidophosphoric acids with higher alkyl radicals were synthesized and investigated as complex formers and extraction reagents for various metals. Dialkyl esters of arylsulfonylamidophosphoric acids, possessing the properties of monobasic acids, were synthesized by the action of trichlorophosphazenesulfonylaryls on higher aliphatic alcohols or by the action of dichlorides of arylsulfonylamidophosphoric acids on higher sodium alcoholates. The solubility of the sodium salts of higher alkyl esters of arylsulfonylamidophosphoric acids in water decreases, while that in organic solvents increases with increasing molecular weight of the alkyls. Sodium salts of the higher dialkyl esters of arylsulfonylamidophosphoric acids are

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UDC: 546.185:547.541.521.1

L 28875-66

ACC NR: AP6018835

0
extracted from aqueous solutions by organic solvents. Extraction takes place only from neutral or alkaline solutions. Under the action of sodium salts of higher dialkyl esters of arylsulfonylamidophosphoric acids on metal chlorides, sulfates, or nitrates in aqueous solutions, aluminum, barium, beryllium, ferrous and ferric, cadmium, calcium, magnesium, manganese, copper, nickel, strontium, and chromium salts of higher dialkyl esters of arylsulfonylamidophosphoric acids are produced; they are very sparingly soluble in water and readily soluble in organic solvents. In the synthesis of dialkyl esters of arylsulfonylamidophosphoric acids from tri-chlorophosphazosulfonylaryls and higher alcohols, higher monoalkyl esters of the arylsulfonylamidophosphoric acids $(\text{ArSO}_2\text{NHPO}(\text{OH})(\text{OR}))$ are formed and are isolated in the form of the disodium salts. Orig. art. has: 6 tables. [JPRS]

SUB CODE: 07 / SUB DATE: 18Jan64 / ORIG REF: 002

Card 2/2 CC

L 46170-66 EWT(m)/I/EWP(t)/ETI/ENP(k) IJP(c) JD/HW
ACC NR: AP6010097 (N) SOURCE CODE: UR/0129/66/000/003/0054/0055

AUTHORS: Zlepko, V. F.; Fedotova, I. I.

ORG: All-Union Thermotechnical Institute (Vsesoyuznyy teplotekhnicheskiy institut)

TITLE: Properties and structural strength of pipes manufactured from steel 12Kh1M1F

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 3, 1966, 54-55

TOPIC TAGS: PIPE, STRESS ANALYSIS, TEMPERING, alloy steel, chromium steel, molybdenum steel, vanadium steel, steel / 12Kh1M1F steel

ABSTRACT: The effect of normalization, quenching, and tempering (followed by aging without and with an applied load) on the mechanical properties and structural strength of two thick-wall pipe specimens manufactured from steel 12Kh1M1F was investigated. The experimental results are presented in graphs and tables (see Fig. 1).

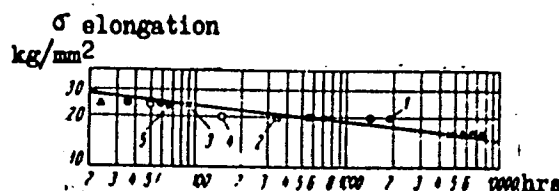


Fig. 1. Long-range strength of normalized steel 15Kh1M1F. 1 - initial state; 2 - aged for 500 hrs; 3 - aged for 1000 hrs; 4 - aged for 3000 hrs; 5 - aged for 5000 hrs.

Card 1/2

UDC: 669.14.018.45:620.18

L 46170-66

ACC NR: AP6010097

It was found that during aging of steel 12Kh1M1F a block type structure develops in the latter. The thermal stability data were treated by the method of I. A. Oding. The results of this analysis showed that the structural changes taking place in the normalized steel under usual working loads are negligible and have little influence on the accumulation of disaggregation nuclei. Orig. art. has: 3 tables and 2 graphs.

SUB CODE: 11/ SUBM DATE: none

Card 2/2 *hdf*

GRISHCHENKO, A.Z.; FEDOTOVA, L.M.; LYAPUNOVA, A.I.

Automatic control of the heat conditions in the mass mercerization of cellulose in a continuous action apparatus. Khim. volok. no.1: 12-15 '62. (MIRA 18:4)

1. Kiyevskiy institut avtomatiki Gosplana UkrSSR.

PEDOTOVA, L.N.

USSR/Chemistry - Analytical chemistry

Card 1/2 Pub. 147 - 11/22

Authors : Fomin, V. V.; Pedotova, L. N.; Sin'kovskiy, V. V., and Andreyeva, M. A.

Title : Study of cadmium chloride complexes by means of anionites

Periodical : Zhur. fiz. khim. 29/11, 2042-2047, Nov 1955

Abstract : A new method for the determination of stability constants of complex anions by means of anions, provided the solution contains one complex ion and complex cations and molecules, is described. The method is based on the application of the effective mass law to the ion exchange. It is shown that the distribution of Cd between the anionite and the potassium chloride solution at an ion force close to one corresponds to a certain

Institution :

Submitted : February 25, 1955

Card 2/2 Pub. 147 - 11/22

Periodical : Zhur. fiz. khim. 29/11, 2042-2047, Nov 1955

Abstract : equation for stability constants of complex Cd-ions. The complexity in retaining a constant ion force during changes in concentrations of ions participating in the complex formation is the main difficulty of the new method. Twenty references: 8 USA, 7 USSR, 1 Ital., 3 Scand., and 1 Germ. (1937-1953). Tables.

ZAVIDOV, S.V.; FEDOTOVA, L.N.

Use of compressed wood in enterprises of the Donets Economic
Council. Mashinostroitel' no.5:21 My '63. (MIRA 16:7)

(Donets Economic Region--Wood, Compressed)
(Donets Economic Region--Machinery industry)

POTAP'YEVSKIY, A.G.; KORITSKIY, V.A.; Prinimali uchastiye: KECHEV, V.S.;
MAKAROV, M.D.; VAYNSHTEYN, A.L.; KULIKOV, N.N.; SHAYOVSKAYA, I.V.;
PAKHLAN, S.M.; FEDOTCVA, L.P.; TATARINOV, G.V.

Ob-458m attachment for welding in CO₂ using PS-300, PS0-300,
and PS-500 transformers. Avtom.svar. 15 no.10:68-70
0 '62. (MIRA 15:11)

(Electric welding--Equipment and supplies)

FEDOTOVA, L.N.

Repairing contour-pressed rollers. Der. prom. 12 no.4:29-30
Ap '63. (MIRA 16:10)

1. Khartsyzskiy trubnyy zavod.

Moscow. Institut stali	
Belokostinovyte javleniya v metallakh i splavakh izdatiye Mashinostroyeniya soveshchaniya (Belokostinovyte javleniya v metallakh i splavakh izdatiye Inter-Institute Conference) Moscow, Metallurgizdat, 1968. 356 p.	
Sponsoring Agency: Ministerstvo vyzhago i srednego special'nogo obrazovaniya KRNK and Moskovskiy Institut stali Izdatiye I.V. Stalin.	
Ed. (Title page): B.F. Finbal'shteyn; Ed. of Publishing House: Ye.I. Levitskiy, Tech. Ed.: A.I. Erushev.	
PURPOSE: This collection of articles is intended for personnel in scientific insti- tutions and schools of higher education and for physical metallurgists and physicists specializing in metals. It may also be useful to students of these fields.	
COVER: The collection contains results of experimental and theoretical inves- tigations carried out by schools of higher education and scientific research institutions in the field of the relaxation phenomena in metals and alloys. Several articles are devoted to the investigation of the internal-friction method of the determination of superplastic solid solutions. Also analyzed are the defects of the crystalline lattice, plastic deformations, high-tem- perature behavior of alloys, and creep. Problems of the relation between internal friction and lower brittleness, the use of the method of internal friction in the investigation of properties of metal products, and the mechanics of burst fracture are discussed. The collection also contains articles on the dynamic charac- teristics of materials, elastic after-effect, and the new alloy-formation method. No personalities are mentioned. References follow most articles. There are 365 references: 102 Soviet and 174 non-Soviet.	
Perlov, B.A. [Moscow Steel Institute]. On Dispersion Correlations in the Theory of Elastic Relaxation	55
Shcherbakov, K.P., and A.A. Surovov [Dnepropetrovsk Metallurgical Institute Institute (Dnepropetrovsk Metallurgical Institute)]. Effect of the Tempering Temperature After Quenching and the Temperature of Isothermal Processing on the Vibration Damping in the Silicon Spring Steel	58
Pliginskii, Yu.Ye., M.P. Alshverich, and L.S. Fedotova [Moscow Steel Institute and Moskovskiy Institut stali (Moscow Steel Institute and Moscow Steel Institute Materials)]. Effect of the Temper Brittleness of High-Chromium Steels on the Internal Friction	64
Chernikova, I.E. [Moscow Steel Institute]. Study of the Tempering of Carbon Steels by the Internal-Friction Method	85
Ershov, M.A., and G.A. Golovin [Tul'skiy mekhanicheskii Institut (Tula Mechanical Institute)]. On the Problem of the Internal Friction in Hardened and Tempered Steel	95
Ershov, M.A., and G.A. Golovin [Tula Mechanical Institute]. Relative Damping of Torsional Vibrations in Heat-Treated VT1 steel	101
Nikitin, Karel, and Karel Jurek [Institute of Technical Physics of the Czechoslovak Academy of Sciences]. Aging of the Aluminum-Silver Alloy	104
Mallikar, G.E., and V.E. Potashov [Kosovskiy pedagogicheskii Institut (Kosovo Pedagogical Institute)]. Decomposition of the Supersaturated Marten- sit in Copper	109
Polyakov, S.K. [Institut Chernoy metallurgii AN SSSR (Institute of Ferrous Metallurgy of the Academy of Sciences USSR)]. Behavior of Carbon in C-iron Alloyed With Manganese and Molybdenum	118
Chernikova, I.E., and V.E. Potashov [Kosovskiy pedagogicheskii Institut (Kosovo Pedagogical Institute)]. Internal Friction of Metastable Solid Solutions [Moscow Steel Institute]	126
Ustinov, L.P. [Moscow Steel Institute]. Investigation of the Carbon Influence on the Properties of Low-Carbon Steel by the Method of Measuring Internal Friction	138
Almazova, G.M. [Moscow Steel Institute]. The High-Temperature Internal Friction of Iron-Vanadium Alloys	146

SOV/137-58-9-19967

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 269 (USSR)

AUTHORS: Alekseyenko, M.F., Alekseyeva, G.N., Orekhov, G.N.,
Fedotova, L.S.

TITLE: A Study of the Sensitivity of Structural Steels to Overheating
(Izucheniye chuvstvitel'nosti konstruktsionnykh staley k
peregrevu)

PERIODICAL: Metallovedeniye i term. obrabotka. Moscow, Metallurgiz-
dat, 1958, pp 21-30

ABSTRACT: An investigation is made of the tendency of 15Kh2GNTA, 25Kh2GNTA, 30Kh2N2VA, and 30Kh3VA steels to overheat in the 900-1300°C temperature interval, and the possibility of correcting this tendency is studied. It is found that overheating may be corrected by normalization at 900-950°. The standard mechanical properties of the overheated and the normally treated metal are identical. The overheating effect is found in impact testing at -70°, in notch tensile testing at 8° notch angle and in fatigue testing; overheating reduces a_k from 9 to 3.4 kgm/cm², σ_b from 106 to 68-77 kg/mm², and σ_{-1} by 3-6 kg/mm². The correction of overheated steel by

Card 1/2

SOV/137-58-9-19967

A Study of the Sensitivity of Structural Steels to Overheating

normalization from a temperature of 150-180° higher than the Ac_3 point confirms the conclusions of a number of investigators to the effect that Chernov's point "B" cannot be identified with the Ac_3 point.

F.U.

1. Steel--Heat treatment
2. Steel--Temperature factors
3. Steel--Test methods

Card 2/2

FEDOTOVA, L. S., ALEKSEYENKO, M. F., and FIGUZOV, Yu. V.

"The Annealing Friability of High-Chromium Steels and Its Influence on Internal Friction."

report presented at Inter-vuz Conference on Relaxation Phenomena in Pure Metals and Alloys, 2-4 Apr 1958., at Moscow Inst. of Steels.

^r
(Moscow Inst. of Steel and A-U Inst. Aircraft Materials.)

Vest. Vysshe Shkoly, 9:72-73, '58
(Figuzov, Yu. V.)

AID Nr. 985-2 7 June Fedotova, L.S.

AUSFORMING OF CHROMIUM STEELS (USSR)

Kubyshkina, T. D., L. M. Pevzner, L. S. Fedotova, and M. F. Alekseyenko.
Metallovedeniye i termicheskaya obrabotka metallov, no. 4, Apr 1963, 32-35.
S/129/63/000/004/008/014

The effect of ausforming on mechanical properties of complex alloyed steels 1X12H1M2A or 3X961 (0.12% C, 11.3% Cr, 1.77% Ni, 1.60% W, 0.43% Mo, 0.27% V) and BHC-6 (0.25% C, 12.3% Cr, 1.64% Ni, 1.74% W, 1.96% Mo, 0.23% V) was investigated. Steel specimens 90 x 35 x 22 mm were austenitized at 1020°C, furnace-cooled to 550°C, rolled with 90% reduction to a thickness of 2.5 mm, and immediately oil-quenched. The table shows tensile strength σ_b , yield strength $\sigma_{0.2}$, elongation δ , and notch toughness a_k of ausformed and conventionally hardened steels in as-quenched condition and after tempering at 500°C for 2 hrs.

Card 1/3

AID Nr. 985-2 7 June

AUSFORMING OF CHROMIUM STEELS [Cont'd]

S/129/63/000/004/008/014

Steel	Condition	σ_b kg/mm ²	$\sigma_{0.2}$ kg/mm ²	δ %	α_k kg-m/cm ²
1X12HBMΦA	Ausformed	180.5	170.0	15.2	6.4
	Ausformed and tempered	173.5	167.0	13.9	8.6
	Quench hardened	147.0	127.5	15.8	
	Quench hardened and tempered	142.0	131.5	13.2	
	Ausformed	231.5	150.5	10.9	4.1
	Ausformed and tempered	220.5	171.0	13.5	6.8
BHC-6	Quench hardened	191.0	151.5	11.5	4.5
	Quench hardened and tempered	183.5	150.5	11.5	3.4

Thus, compared to conventional hardening, ausforming increases tensile and yield strength by approximately 20% without lowering ductility. It also makes

Card: 2/3

AID Nr. 985-2 7 June

AUSFORMING OF CHROMIUM STEELS [Cont'd]

S/129/63/000/004/008/014

the steel structure more stable; the softening of ausformed steels begins at temperatures well over 500°C. Both steels after conventional hardening are susceptible to temper brittleness; for example, tempering at 400-500°C lowers the notch toughness of BHC-6 steel to 2.5-3.0 kgm/cm². In the ausformed BHC-6 steel, however, notch toughness increases steadily with increasing tempering temperature up to 7 kgm/cm² at 500°C. Another special advantage of ausformed steels is high notch toughness at subzero temperatures; BHC-6 ausformed and tempered at 500°C has an average notch toughness at -70 to -196°C of over 7 and 4.0 kgm/cm², respectively. In conventionally hardened steel, notch toughness dropped to 1-1.5 kgm/cm² at -70°C. [WW]

Card 3/3

L 45432-65 ENT(m)/EWP(w)/EPF(n)-2/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) Pu-L/Pad
TJP(C) -JD/HW/JG/GS

ACCESSION NR: AT5011346

UR/0000/65/000/000/0116/0125

AUTHOR: Zaslavskaya, L. V.; Lashko, N. F.; Fedotova, L. S.

TITLE: Carbide transformations in heat-resistant steel containing 12% Cr

SOURCE: Fazovyy sostav, struktura i svoystva legirovannykh staley i splavov
(Phase composition, structure, and properties of alloy steels and alloys).
Moscow, Izd-vo Mashinostroyeniya, 1965, 116-125

TOPIC TAGS: heat resistant steel, chrome steel, martensitic steel, steel phase composition, carbide transformation, molybdenum steel, steel heat treatment, steel mechanical property

ABSTRACT: Martensitic heat-resistant steels with 12% Cr contain the so-called Me₂C phase, which has an Mo₂C-type structure and forms at low temperatures. The chemical composition and temperature region of existence of this phase were established in four steels containing 12% Cr but different amounts of carbon, nickel, and molybdenum (see Table 1 of the Enclosure). X-ray structural analysis of the anodic deposits isolated from these steels showed the presence, depending upon the tempering conditions, of a single phase with an Mo₂C-type hexagonal structure or the same phase containing Me₂C₆. The crystal lattice parameters

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L 45132-65

ACCESSION NR: AT5011346

6
of the Me_2X phase were found to be $a = 2.86 \text{ \AA}$, $c = 4.47 \text{ \AA}$, and chemical analysis showed that the main constituent of the phase is chromium. Hence, its main constituent is either Cr_2C or the alloyed carbonitride $Cr_2(C, N)$. Molybdenum, tungsten, and vanadium increase the stability and extend the temperature region of existence of the carbide Me_2C . It is most stable in steel 4. As the tempering is raised, the metastable carbide Me_2C dissolves partially or completely, and the alloying elements are bound in the more stable carbides $Me_{23}C_6$. The latter dissolve in the temperature interval of stability of Me_2C carbides. After long tempering at 550°C (100 hrs.), an intermetallic phase of type Fe_2W is formed in steel 4. The formation of highly dispersed carbides Me_2C raises the yield point and ultimate strength of the steel and retards the softening of steel in the course of short-term tempering. "N. V. Ivanova and K. V. Smirnova participated in the experimental part of the work." Orig. art. has: 5 tables.

ASSOCIATION: none

SUBMITTED: 17Dec64

ENCL: 01

SUB CODE: MM, 55

NO REF SOV: 001

OTHER: 002

Card 2/3

L 15132-65

ACCESSION NR: AT5011346

0

Table 1. Chemical composition of the high-chromium heat-resistant martensitic steels studied.

Steel No.	Content of elements %								Temperature of oil quenching °C
	C	Mn	Si	Cr	Ni	W	Mo	V	
1	0.16	0.50	0.50	13.60	3.05	1.66	-	0.20	1050
2*	0.15	0.50	0.50	13.60	3.05	1.66	-	0.20	1050
3	0.13	0.30	0.25	11.04	1.57	1.73	0.49	0.36	1010
4	0.24	0.30	0.46	12.70	1.70	1.77	1.70	0.24	1050

*The steel contains 0.043% Ti and 0.005% B

Card 3/3

L 1678-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) IJP(c) JD/JQ

ACCESSION NR: AP5013232

UR/0133/65/000/005/0448/0452

669.15 : 669.26

AUTHOR: Zaslavskaya, L. V.; Lashko, N. F.; Fedotova, L. S.

TITLE: Phase composition and properties of heat-resistant steel containing 12% chromium

SOURCE: Stal', no. 5, 1965, 448-452

TOPIC TAGS: chromium steel, heat resistant steel, molybdenum steel, vanadium steel, tungsten steel

ABSTRACT: The effect of alloying elements on the phase composition and properties was studied in three types of chromium steel containing approximately 12% chromium, alloyed with molybdenum, tungsten, and vanadium. At low tempering temperatures, depending upon the duration of tempering, the metastable carbides Me_3C and Me_2C are formed. The Me_2C carbides (with Cr C as the main component) cause the secondary hardness of the steels. The temperature range of existence of Me_2C carbides widens as the molybdenum and tungsten content increases. An appreciable drop in the impact strength of such steels is observed when the dispersed carbides (par-

Card 1/2

L 1678-66

ACCESSION NR: AP5013232

particularly $Me_2_3C_6$) precipitate. In the course of tempering steels with a high molybdenum and tungsten content, all of the carbon gradually becomes fixed in the carbides, and this is followed by the formation of particles of the intermetallic phase $Me_2(W, Mo)$. The formation of this phase causes a decrease in the impact strength. Orig. art. has: 8 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 005

OTHER: 002

Card 2/2

90

FEDOTOVA, L.S., inzh.; KUBYSHKINA, T.D., inzh.; ZASLAVSKAYA, L.V., inzh.

Properties and structure of stainless steel 1Kh12N2VMA.
Vest. mashinostr. 45 no. 12:57-60 D '65 (MIRA 19:1)

43059-55 EWT(m)/EWF(w)/T/EWF(t)/EII IDP(c) JD	
ACC NR: AP6014337	SOURCE CODE: UR/0122/65/000/012/0057/0060
AUTHORS: Fedotova, L. S. (Engineer); Kubyshkina, T. D. (Engineer); Zaslavskaya, L. V. (Engineer)	
ORG: none	16 16 39 B
TITLE: The properties and structure of <u>1Kh12N2VMFA</u> stainless steel	
SOURCE: Vestnik mashinostroyeniya, no. 12, 1965, 57-60	
TOPIC TAGS: austenite, martensite steel, martensitic transformation, hardness, carbide phase, tempering, steel microstructure, microhardening/ 1Kh12N2VMFA martensite steel	
ABSTRACT: The properties and structure of 1Kh12N2VMFA martensite steel are given. Its chemical composition is (in %): 0.12 C, 12 Cr, 1.5 Ni, 2 W, 0.25 V, and 0.4 Mo. This steel can operate for prolonged periods at temperatures to 600C. The introduction of nickel allows the formation of δ -ferrite to be avoided. Its best mechanical properties are achieved with quenching from a temperature corresponding to fairly complete dissolution of the carbon and alloy elements (from 1000--1020C in oil or in air, with tempering at 580 or 680C). In the hardened state, the steel has a hardness of HRC 44--46 (see Fig. 1). The magnetic and dilatometric methods were used to study the martensitic transformation in the steel. It was found that the displacement of the boundaries of <u>martensitic transformation</u> did not substantially increase the amount	
Cord 1/2	UDC: 621.78:669.15-194.1Kh12N2VMFA

L 43069-66

ACC NR: AP60114337

0

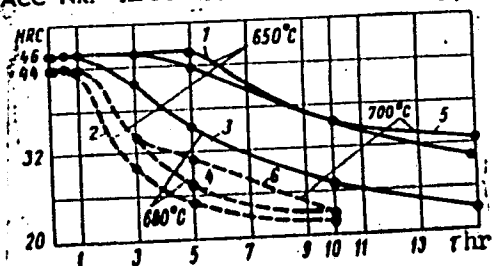


Fig. 1. Hardness of steel as function of holding time at various isotherm temperatures: 1, 3, 5 (continuous curves)--after austenization at 1050°C; 2, 4, 6 (dotted curves)--after austenization at 950°C.

of residual austenite. Orig. art. has: 3 tables, 2 photographs, and 4 graphs.

SUB CODE: 11/

SUBM DATE: none

Card 2/2 hs

USSR/Medicine - Nutrition

FD-3291

Card 1/1

Pub. 141 - 6/19

Author : Bremener, S. M., Fedotova, L. V.

Title : Experiment on combatting loss of appetite in patients suffering from tuberculosis of the lungs

Periodical : Vop. pit., 26-30, Jul/Aug 1955

Abstract : Selection of favorite dishes, changes in eating schedule, and certain other measures were found to be effective in increasing the appetite of patients suffering from tuberculosis of the lungs. Use of vegetable juices, and small amounts of natural grape wine also helped. Surgical treatment (thoracoplasty, collapsing of the lungs) lowered the tuberculin intoxication and often improved the appetite. One table; no references.

Institution : Clinic of Therapeutic Nutrition (Head - Cand Med Sci S. M. Bremener)
Inst of Climatotherapy of Tuberculosis, Ministry of Health USSR, Yalta

Submitted :

YUKEL'SON, I.I.; SLUKIN, A.D.; KORBANOVA, Z.N.; SHESTAKOVA, O.G.; FEDOTOVA, L.V.

Investigating polyarylene alkyls as ingredients of a rubber compound. Kauch. i rez. 22 no.9:2-4 S '63. (MIRA 16:11)

1. Voronezhskiy shinnyy zavod i Voronezhskiy tekhnologicheskikiy institut.

L 25322-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM

ACCESSION NR: AR5003013

S/0081/64/000/020/S083/S083

SOURCE: Ref. zh. Khimiya, Abs. 208521

AUTHOR: Slukin, A. D.; Yukel'son, I. I.; Shestakova, O. G.;
Korbanova, Z. N.; Fedotova, L. V. B

TITLE: Polyethylphenylene ethyl as an ingredient in rubber mixtures

CITED SOURCE: Tr. Labor. khimii vysokomolekul. soedineniy.
Voronezhsk. un-t, vyp. 2, 1963, 136-139

TOPIC TAGS: rubber mixture, protective coating, plasticizer,
vulcanizer, rubber vulcanization, rubber property, polyethylphenylene
ethyl/ protective coating SKS-30 ARKM, PN-6 oil

TRANSLATION: A polymer of polyethylphenylene ethyl (10-25 parts by weight) was used as a plasticizer in the preparation of protective coatings made of SKS-30 ARKM, containing 100 parts by weight rubber and 50 parts by weight carbon black HAF. The industrial properties of the mixtures are analogous to the properties of mixtures with PN-6 oil. With small plasticizer contents, the tensile strength of

Card 1/2

L 25322-65

ACCESSION NR: AR5003013

rubbers with PN-6 oil is higher than that of rubbers with polyethylphenylene ethyl; in proportion to increase in plasticizer content, the strength of vulcanizers with PN-6 falls more than the strength with polyethylphenylene ethyl. Polyethylphenylene ethyl also increases the elasticity and the dynamic properties of vulcanizers. I. Krylova.

SUB CODE: 00, 00

ENCL: 00

Card 2/2

L 4281-66 EWT(m)/EPF(c)/EWP(j)/T---RM
ACCESSION NR: AP5024104

UR/0138/65/000/009/0006/0008
678.048/049:546/547.07.004.12

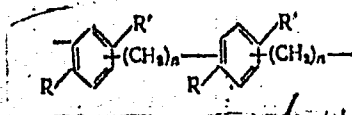
AUTHOR: Yukel'son, I. I.; Sjukin, A. D.; Sukinov, V. S.; Korbanoval, Z. N.;
Fedotova, L. V.; Shentakova, O. G.

TITLE: Study of nitro derivatives of polyarylenealkyls as ingredients of rubber blends

SOURCE: Kauchuk i rezina, no. 9, 1965, 6-8

TOPIC TAGS: nitration, antioxidant additive, chain polymer, rubber chemical

ABSTRACT: The article deals with the synthesis of nitro derivatives of carbon chain
aliphatic-aromatic polymers of the type



and their testing as softeners and antiaging agents for synthetic rubbers. A method of
synthesis of these nitro derivatives, involving nitration of the polymers with mixtures of

Card 1/2

L 4281-66

ACCESSION NR: AP5024104

9
nitric and sulfuric acid at 30 - 40C, was developed at the Voronezh shinnyy zavod (Voronezh Tire Plant). Polyphenyleneethylenes (containing 2.4, 3.0, 4.1, and 5.4% nitrogen) and polyethylphenyleneethylenes (4.9% nitrogen) were synthesized and tested in tread stocks with an SKS-30ARKM base containing PM-70 carbon black and with an NK base containing a combination of channel gas black and PM-70 black. In mixtures based on SKS-30ARKM, addition of the nitro derivatives markedly increases the hardness and the modulus at 300% elongation, and causes a certain increase in the strength of the vulcanizates. In mixtures based on NK, the synthesized products raise the modulus at 300% elongation (by 10 - 20%) and the hardness. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Voronezhskiy tekhnologicheskii institut (Voronezh Technological Institute); Voronezhskiy shinnyy zavod (Voronezh Tire Plant) 14/55

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, GC

NO REF SOV: 003

OTHER: 000

Card 2/2 DP

FEDOTOVA, M.

Prompted by practice. Fin.SSSR 37 no.4:71-73 Ap '63.

(MIRA 16:4)

1. Starshiy inspektor upravleniya Gosstrakha po Kabardino-Balkarskoy ASSR.

(Kabardino-Balkar A.S.S.R.—Insurance, Agricultural—Livestock)

MALBIYEV, Rafael' Isaakovich; SHPAKOVSKIY, V.I., red.; FEDOTOVA, M.I.,
ved.red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Dockside structures of tank farms] Prichal'nye sooruzhenia
naftobaz. Leningrad, Gos. nauchno-tekhn.izd-vo neft. i gorno-
toplivnoi lit-ry, Leningr. otd-nie, 1958. 165 p. (MIRA 12:1)
(Wharves) (Tank vessels)

LYAKHOVSKIY, D. N., red.; FEDOTOVA, M. I., vedushchiy red.; YASHCHURZHINSKAYA,
A. B., tekhn. red.

[Theory and practice of gas combustion; papers at a technical
conference] Teoriya i praktika szhiganiya gaza; trudy nauchno-tekhnicheskogo
soveshchaniya [obshchestva], Leningrad, Gos. nauchno-tekhn. izd-vo
neft. i gorno-toplivnoi lit-ry, Leningr. otd-nie, 1958. 343 p.
(MIRA 11:8)

1. Nauchno-tekhnicheskoye obshchestvo energeticheskoy promyshlennosti.
TSentral'noye pravleniye. Sektsiya gazifikatsii.
(Gas) (Combustion)

LIKHACHEV, Yu.A.; VLADIMIRSKIY, V.S.; MALOVA, E.V.; SHUL'TS (mladshiy), S.S.;
MAKAROVA, Z.A.; SINCHUGOVA, T.A.; CHUYENKO, P.P., red.; FEDOTOVA, M.I.,
vedushchiy red.; DEM'YANENKO, V.I., tekhn.red.

[Paleozoic tectonics of the Kyzyl Kum basement] Tektonika
paleozoiskogo fundamenta Kyzylkumov. Leningrad, Gostoptekhnizdat,
1963. 117 p. (Leningrad, Vsesoiuznyi geologicheskii institut.
Trudy, vol. 105. Problema neftegazonosnosti Srednei Azii, no.15).
(MIRA 17:3)

KATCHENKOV, Semen Mikhaylovich; PROKOFIYEV, V.K., prof.,
retsensent; KLER, M.M., dots., retsensent;
KHOKHLOV, V.V., nauchn. red.; FEDOTOVA, M.I., ved.
red.; BELYAKOV, M.F., dots., red.

[Spectrum analysis of rocks] Spektral'nyi analiz gor-
nykh porod. Izd.2., perer. i dop. Leningrad, Nedra,
1964. 271 p.
(MIRA 18:1)

ZHIZHCHEMKO, Boris Prokof'yevich; VASSOYEVICH, N.B., red.; FEDOTOVA,
M.I., vedushchiy red.; GEMHAD'YEVA, I.M., tekhn.red.

[Methods of paleogeographical research] Metody paleogeograficheskikh
issledovaniy. Leningrad, Gos.nauchno-tekhn.isd-vo neft. i gorno-
toplivnoi lit-ry, Leningr. otd-nis, 1959. 370 p. (MIRA 12:4)
(Paleogeographical research)

RAYEVA, N.V.; FIEDOTOVA, M.I.; USACHEVA, I.N.

Colimycin in the compound therapy of acute radiation sickness.
Antibiotiki 4 no.4:50-57 J1-Ag '59. (HIRA 12:11)
(RADIATION INJURY exper)
(ANTIBIOTICS pharmacol)

RAYEVA, N.V.; BIGHEYKINA, N.I.; FEDOTOVA, M.I.; USACHEVA, I.N.

Aureomycin in complex therapy of acute radiation sickness in dogs.
Farm. i toks. 23 no. 2: 173-174 Mr-A5 '60. (MIRA 14:3)
(RADIATION SICKNESS) (AUREOMYCIN)

RAYEVA, N.V.; BICHEVKINA, N.I.; FEDOTOVA, M.I.; USACHEVA, I.N.

Experimental data of a study on the effect of chlortetracycline for oral administration in various forms of complex therapy for acute radiation sickness. Antibiotiki 5 no.1:73-77 Ja-F '60. (MIRA 13:7)
(RADIATION SICKNESS) (CHLORTETRACYCLINE)

FEDOTOVA, M.I.; RAYEVA, N.V.; BICHEVKINA, N.I.; USACHEVA, I.N.

Experimental data of a study on the effect of chlortetracycline
for parenteral administration in various forms of complex therapy
for acute radiation sickness. Antibiotiki 5 no.1:77-80 Ja-F '60.
(MIRA 13:7)

(CHLORTETRACYCLINE)

(RADIATION SICKNESS)

RAYEVA, N.V.; FEDOTOVA, M.I.; USACHEVA, I.N.

Experimental data for a study of the effect of tetracycline in various forms of compound therapy and the prevention of acute radiation sickness in dogs. Antibiotiki 5 no. 5:48-51 S-O '60.
(MIRA 13:10)

(RADIATION SICKNESS) (TETRACYCLINE)

FEDOTOVA, M. I. (Moskva)

Influence of gamma rays on the sorptive properties of some
tissues of white rats under conditions of chronic irradiation.
Ark. pat. no.12:57-61 '61. (MIRA 15:7)

1. Nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR prof.
I. D. ~~Gavrilov~~

(GAMMA RAYS—PHYSIOLOGICAL EFFECT)

L 11241-63

EWI(1)/EWI(m)/IDS--APFTC/AMD/ASD--AR/K

ACCESSION NO: AP3001063

5/0205/63/003/003/0389/0392

AUTHOR: Gruzdev, G. P.; Fedotova, M. I.; Shcherbova, Ye. N. 56

TITLE: Certain regularities in marrow wasting in rats injured by gamma radiation 19

SOURCE: Radiobiologiya, v. 3, no. 3, 1963, 389-392

TOPIC TAGS: marrow wasting, radiation sickness, quantitative marrow cell count

ABSTRACT: Little is known about the wasting process of blood-forming tissue, especially marrow, in radiation sickness. This study differs from others because it uses a quantitative marrow cell count method to measure wasting. White rats were exposed to a cobalt gamma source in doses of 150, 400, 750, and 5,000 r. Dose power was 290-302 r/min. After exposure marrow cell counts at the hip were made at regular intervals from .5 hr to 72 hrs. Results are summarized in Figs. 1 and 2. Marrow wasting, it was found, can be divided into three phases. The first phase lasts 4 hrs and the number of cells does not change. The second phase lasts 2-3 hrs and the number of cells decreases depending on radiation dose (in the range from 400 to 5,000 r the dependence can be expressed by a power function). The third phase has a duration depending on radiation dose and the number of cells also decreases according to the same power function except for the 150 r dose. For

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ACCESSION NR: AP3001063

small dose radiation (150-400 r) the second phase is most important because 52% to 77% of the total decrease in number of cells takes place. For large dose radiation (750-5,000 r) the second and third phases are of nearly equal importance because decrease in the number of cells is about 51% to 60% in the second phase and 49% to 40% in the third phase. Orig. art. has: 2 figures, 4 formulas.

ASSOCIATION: none

SUBMITTED: 08Feb62

DATE ACQD: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 004

OTHER: 002

ch/wm
Card 2/2

S/241/63/008/002/004/006
D243/D307

AUTHORS: Gruzdev, G.P., Yevseyeva, N.K., Rozhdestvenskiy, L.M., Fedotova, M.I. and Shcherbova, Ye.N.

TITLE: Disturbance of cell regeneration in the bone marrow of rats exposed to ionizing radiation

PERIODICAL: Meditsinskaya radiologiya, v. 8, no. 2, 1963, 35-41

TEXT: The above problem was studied in view of lack of publications concerned with the effect of radiation on the bone marrow. The animals were exposed to whole-body γ -irradiation at 305 r/min, the total dose being 400 r. The rats were then decapitated on the 1st, 3rd, 5th, 7th, 9th, 15th, 20th and 30th day after irradiation and the mitotic index, the development of chromosome observations, the total content of myeloid cells and individual cellular regenerations in the bone marrow were measured. The mitotic index fell sharply on the 1st day and then rose rapidly to a maximum on the 7th day; a second shallow minimum on the 15th day was then followed by a gradual rise. The number of cells of the bone marrow

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Disturbance of cell regeneration ...

S/241/63/008/002/004/006
D243/D307

was not however fully related to the above changes. Chromosome aberrations rose sharply on the 1st day after irradiation and then rapidly decreased, with a slight maximum on the 7th day. The mitotic activity of erithropoietic cells showed a sharp rise from the 3rd day after dosing, indicating regeneration of these cells. It is concluded that the myeloid cells of the bone marrow, which divided with manifestation of chromosome aberrations, gave rise to non-viable daughter cells and perished rapidly. There are 1 figure and 3 tables.

Card 2/2

GRUZDEV, G.P.; YEVSEYEVA, N.K.; ROZHDESTVENSKIY, L.M.; FEDOTOVA, M.I.;
SHCHERBOVA, Ye.N.

Disorders in the processes of cell regeneration in the bone
marrow of rats subjected to ionizing radiation. Med.rad. 8
no.2:35-42 F'63 (MIRA 16:11)

*

SEROVA, L.V.; FEDOTOVA, M.I.

Preventive action of aëroionization in acute radiation sickness.
Biul. eksp. biol. i med. 58 no.8:60-63 Ag '64.

(MIRA 18:3)

1. Submitted June 19, 1963.

NECHAYEV, Mikhail Aleksandrovich. Prinimal uchastiye MITROFANOV, I.A.,
inzh.; ZUBAREV, S.A., retsenzent; LEVIN, A.M., retsenzent;
SIGAL, I.Ya., retsenzeng; KOLYADA, I.A., retsenzent; STOLPNER,
Ye.B., nauchnyy red.; FEDOTOVA, M.I., ved. red.; SAFRONOVA, I.M.,
tekhn. red.

[Safety measures in the transportation, distribution, and use
of gas fuel] Tekhnika bezopasnosti pri transportirovke, ras-
predelenii i ispol'zovanii gazovogo topliva. Izd.3., perer.
i dop. Leningrad, Gostoptekhizdat, 1962. 299 p.

(MIRA 15:4)

(Gas as fuel—Safety measures)

ALFEROV, Boris Aleksandrovich; FEDOTOVA, M.I., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Key wells of the U.S.S.R.; Aleksandriyskaya well (Northern Caucasus)]
Opornye skvazhiny SSSR; Aleksadriiskaia opornaia skvazhina (Svernyi Kavkaz). Leningrad, Gos. nauchno-tekhn. izd-vo nef. i gorno-toplivnoi lit-ry, Leningr. otd-ie. 1962. 66 p. (Leningrad. Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologorazvedochnyi institut. Trudy, no.192)

(Caucasus, Northern—Petroleum geology)

AVROV, V.Ya.; BLINNIKOV, I.A.; BROD, I.O.[deceased]; BUYALOV, N.I.;
VASIL'YEV, V.G.; DMITRIYEV, Ye.Ya.; YELIN, N.D.; YEROFEYEV,
N.S.; ZUBOV, I.P.; KALININ, N.A.; KUDRYASHOVA, N.M.; MAKSIMOV,
S.P.; L'VOV, M.S.; MIRCHINK, M.F.; OVCHINNIKOVA, T.G.;
SIMAKOV, S.N.; TROFIMUK, A.A.; TKHOSTOV, B.A.; FEDOTOVA, M.I.,
ved. red.

[Predicting gas potential of the U.S.S.R.] Prognoz gazonosno-
sti SSSR. Leningrad, Gostoptekhizdat, 1963. 175 p.
(MIRA 17:4)

BRODYANSKIY, Isor Khaumovich; FEDOTOVA, M.I., ved. red.

[Laying out gas pipeline fittings; new table and graph method] Razmetka fasonnykh chastei gazoprovodov; novyi tablrichno-graficheskii metod. Izd.3., sokr. i perer. Leningrad, Nedra, 1965. 150 p. (MIRA 18:7)

FEDOTOVA

USSR/Cultivated Plants. Cereals.

M

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77648.

Author : Ivanovskaya, T.L.; Fedotova, M.M.

Inst :

Title : Formation of Tubercles on the Roots of Soy in a Vegetation Experiment.

Orig Pub: Agrobiologiya, 1956, No 6, 29-34.

Abstract: In experiments of the Institute of Genetics AS USSR with soy and lupine, the possibility was studied of formation of tubercles on the roots of these plants in soils on which neither had ever been cultivated. Before sowing, the seeds were sterilized with sulfuric acid (1.5 minutes in acid of specific weight 1.84). In the course of the vegetative period each crop was cultivated

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*Inst. Genetics.
AS USSR*

USSR/Cultivated Plants. Cereals.

M

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77648.

twice, so that for two years the experiments were variants with sowing four times in the same containers. Both in the first and second year of the experiment, tubercles were not formed on the roots of the soy and lupine. They did not appear with sowing with non-sterile seeds. Tubercles are normally formed in the first year on these soils in peas and beans. For the creation of a poorer base, in the second year half the soil was mixed with river sand in 50% of the vessels before sowing. In addition, an additional experiment was established with cultivation of plants on pure sand. In these variants, the tubercles were formed on the roots of the lupine and soy; in the soy, they were a non-typical form for this plant. With repeated cultiva-

Card : 2/3

USSR/Cultivated Plants. Cereals.

M

Abs Jour: Ref Zhur-Diol., No 17, 1958, 77648.

tion of the soy in the vessel with sand, in which the roots with tubercules remained from the primary sowing, tubercules appeared, on the whole typical for soy, the size of a pea grain and stronger. Tubercules were formed in plants which were not distinguished by good development, possessed yellow-colored leaves. No tubercules appeared in the roots of well-developed plants. -- G. N. Chernov.

Card : 3/3

45

AFANAS'YEVA, S.I., inzh.; FEDOTOVA, M.N., inzh.

Radio control of train traffic. Avtom., telem. i svias' 7
no. 3:46-47 Mr '63. (MIRA 16:2)

(Railroads—Signaling)
(Railroads—Communication systems)

MALAKHOVA, Ye.I., kand. veter. nauk; NAUMYCHEVA, M.I., kand. veter.
nauk; FEDOTOVA, M.N., veter. vrach; FOMICHEV, A.S., veter. vrach

Piperazine for preimaginal deworming in swine ascaridosis.
Veterinariia 39 no.10:45-46 0 '62. (MIRA 16:6)

1. Vsesoyuznyy institut gel'mintologii imeni akademika K.I.
Skryabina.

(Piperazine)
(Ascarids and ascariasis)
(Parasites—Swine)

MALAKHOVA, Ye.I., starshiy nauchnyy sotrudnik; NAUMICHEVA, M.I., starshiy
nauchnyy sotrudnik; FEDOTOVA, M.N., veterinarnyy vrach; POLETAYEVA,
O.G., biolog

Testing the chemoprophylactic properties of piperazine and ditrazine
in swine ascariasis. Trudy VIGIS 10:207-220 '63.

(MIRA 17:9)

FEDOTOVA, M. S.
 Flocculation of bentonite suspensions to make sand impermeable to water. M. S. Fedotova and E. A. Pospelova (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 94, 1159-62 (1954).—The highly stable, thixotropic suspensions (with 3 to 6% solid material) of Oplank Na bentonite are flocculated by dil. solns. of $AlCl_3$ (e.g., 0.0003% to 0.05 and 0.10% of the salt). The rate of filtration through the bentonite-treated sand corresponds to $\log v = a + \gamma \log t$, in which a is experimentally detd., γ is measured by the tan function of the slope angles for the parallel lines of the graph of this equation, v is vol. of filtrate, and t is time. To make sand less permeable to H_2O the highly dispersed bentonite suspension is impregnated completely into the loose sand, then the flocculating agent is added to ppt. the clay mineral particles on the surface of the sand grains. This effect is satisfactory only to a depth of about 5 cm. If the concns. (in g. equivalents) for the solns. of the chlorides of Na, K, Mg, Ca, Ba, and Al are plotted against the const. a (detd. for a filtration time of 10 min.), the efficiencies of the flocculation of $AlCl_3$, $MgCl_2$, and $NaCl$ are given by the ratio of the concns. 1:4:113. The lyotropic series $Na^+ < K^+ < Mg^{2+} < Ca^{2+} < Ba^{2+}$ is evidently valid. Additions of Na_2CO_3 more or less compen-

sate the flocculating effect of $AlCl_3$. By such mixed addns. the times of flocculation can be controlled. W. Eitel

FEDOTOVA, M.S., kand. khim. nauk; POSPELOVA, K.A., kand. khim. nauk

Determination of the dispersity of fillers with the aid of a
sedimentation meter designed by N.A. Figurovskii. Bum. prom.
34 no.11:11-12 N '59. (MIRA 13:3)

1. Moskovskiy filial Tsentral'nogo nauchno-issledovatel'skogo instituta
tsellyuloznoy i bumazhnoy promyshlennosti.
(Paper) (Fillers) (Sedimentation analysis)

FEDOTOVA, M.S., kand.khim.nauk

Production of thick parchment in Czechoslovakia. Bum.prom. 35
no.10:27-28 0 '60. (MIRA 13:10)
(Czechoslovakia--Parchment)

UETSKIY, Moisey Isaakovich; FEDOTOVA, M.S., red.; KHOT'KOVA, Ye.S.,
red.izd-va; SHIBKOVA, R.Ye., tekhn. red.

[Photosensitive paper and diazotype tracing cloth] Svetochuv-
stvitel'naia bumaga i diazokal'ka. Moskva, Goslesbumizdat,
1963. 142 p. (MIRA 16:8)
(Photocopying processes--Equipment and supplies)

L 07546-67

ACC NR: AP6014703

(A)

SOURCE CODE: UR/0329/65/000/012/0007/0008

AUTHOR: Fedotova, M. S.; Denisova, L. M.

ORG: Central Scientific-Research Institute of Paper (Tsentral'nyy nauchno-issledovatel'skiy institut bumagi)

19

8

TITLE: Development of new types of light-sensitive paper

SOURCE: Bumazhnaya promyshlennost', no. 12, 1965, 7-8

TOPIC TAGS: photosensitivity, paper, paper industry

ABSTRACT: New light-sensitive papers were developed, combining diazo compounds which had not been used previously in the paper industry and a new type of paper base. ZnCl_2 salts of diazotized 4-N-ethyl-N-8-hydroxyethylaniline and 4-diazophenylmorpholine gave good results on quality paper prepared from highly bleached cellulose, TiO_2 filler, and optical brightener. Commercial Fe-containing ZnCl_2 was shown to impair quality by interaction with 2,3-dihydroxynaphthalene-6-sulfonic acid, a component of the light-sensitive solution. Temperature controlled drying was required to prevent decomposition of diazo compounds. Glycerol, being in short supply, was replaced by a 2:1 amount of xylitol. The new dry developing papers gave sharp contrasts and high

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UDC: 676.4.001.5